

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: STREETWORKS

Report Number: P214950

Luminaire Tested: **ARCH-AF16-60-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-60-D-U-T4W-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4743 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

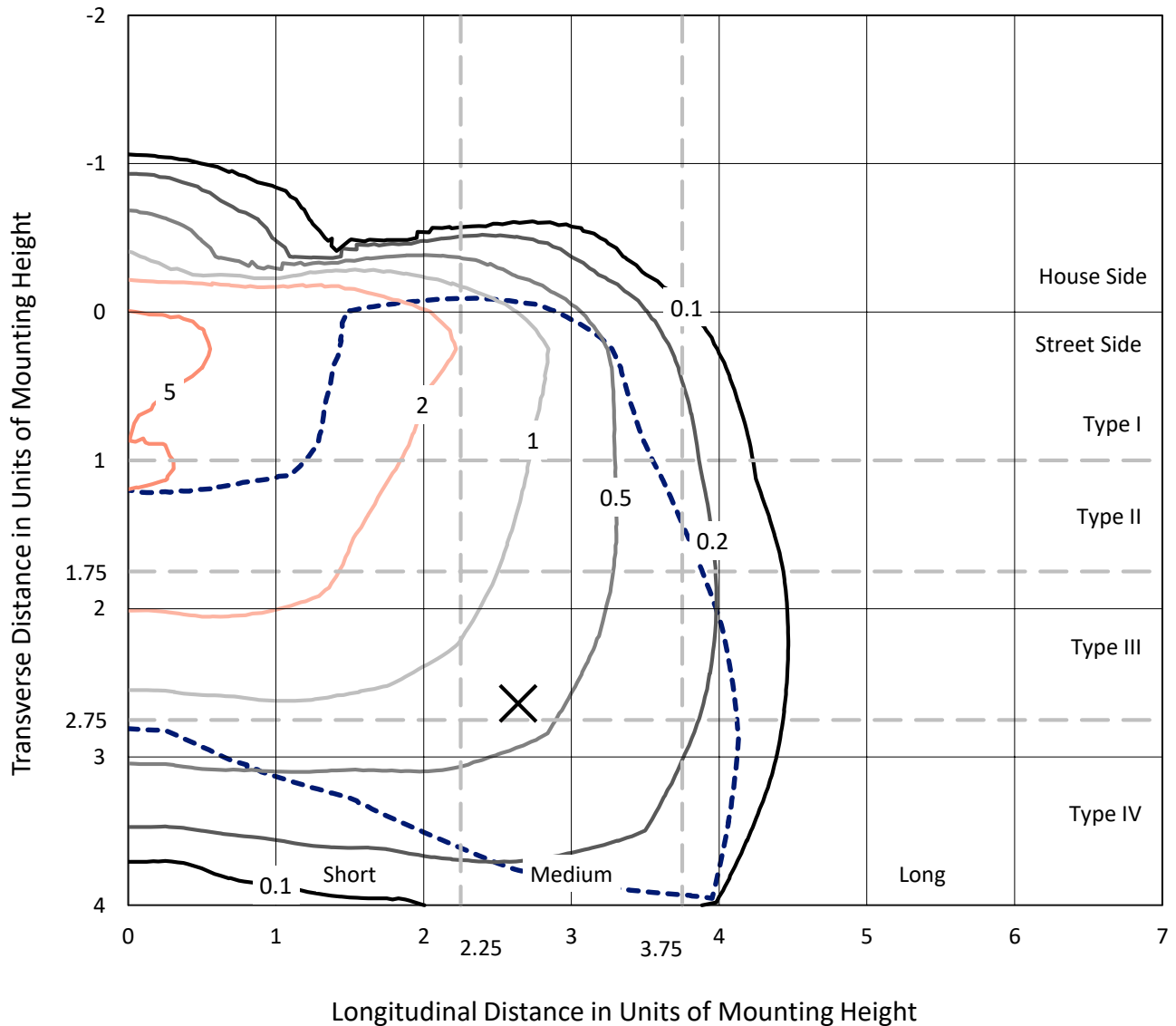
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P214950  
 CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

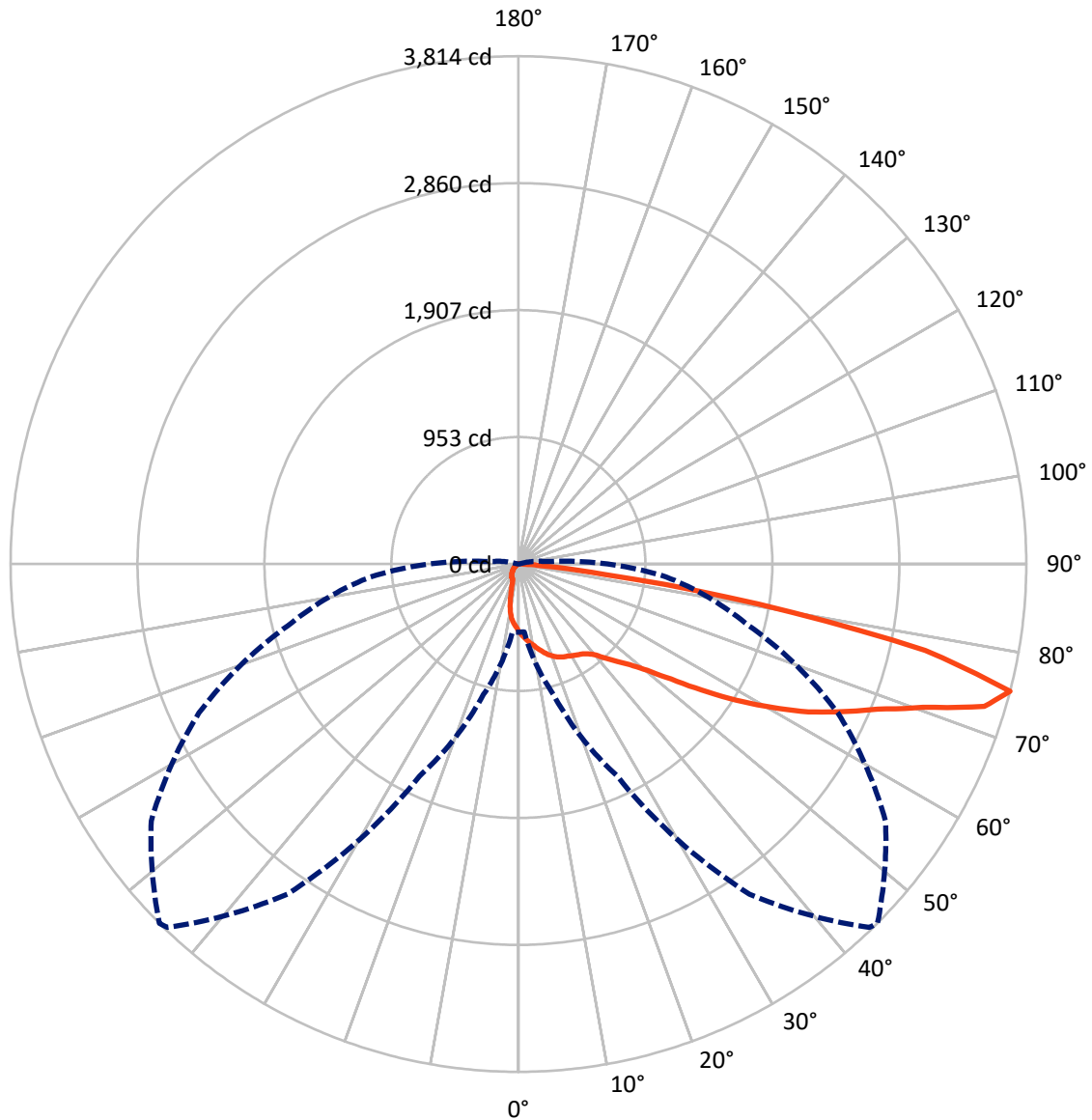


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214950

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical



REPORT NUMBER: P214950

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

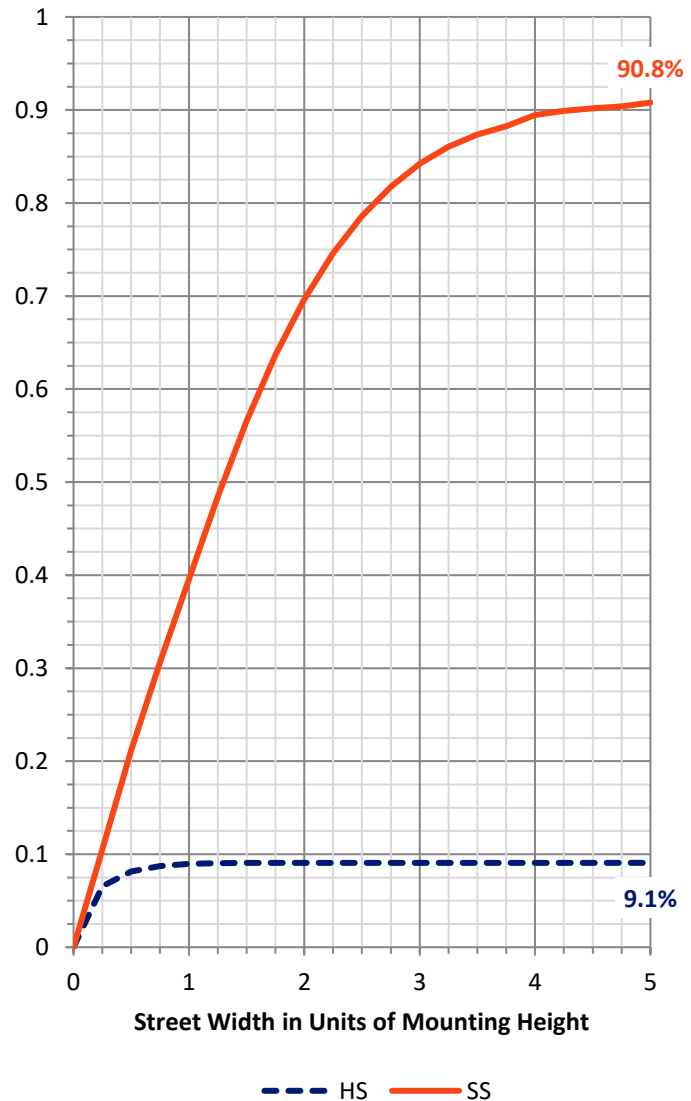
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	433.8	0.0	433.8
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	4309.2	0.0	4309.2
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	4743.0	0.0	4743.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.9	1.0
10°-20°	135.6	2.9
20°-30°	224.6	4.7
30°-40°	325.1	6.9
40°-50°	532.3	11.2
50°-60°	948.5	20.0
60°-70°	1394.4	29.4
70°-80°	1052.0	22.2
80°-90°	82.5	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4743.0	100.0
0°-180°	4743.0	100.0



REPORT NUMBER: P214950

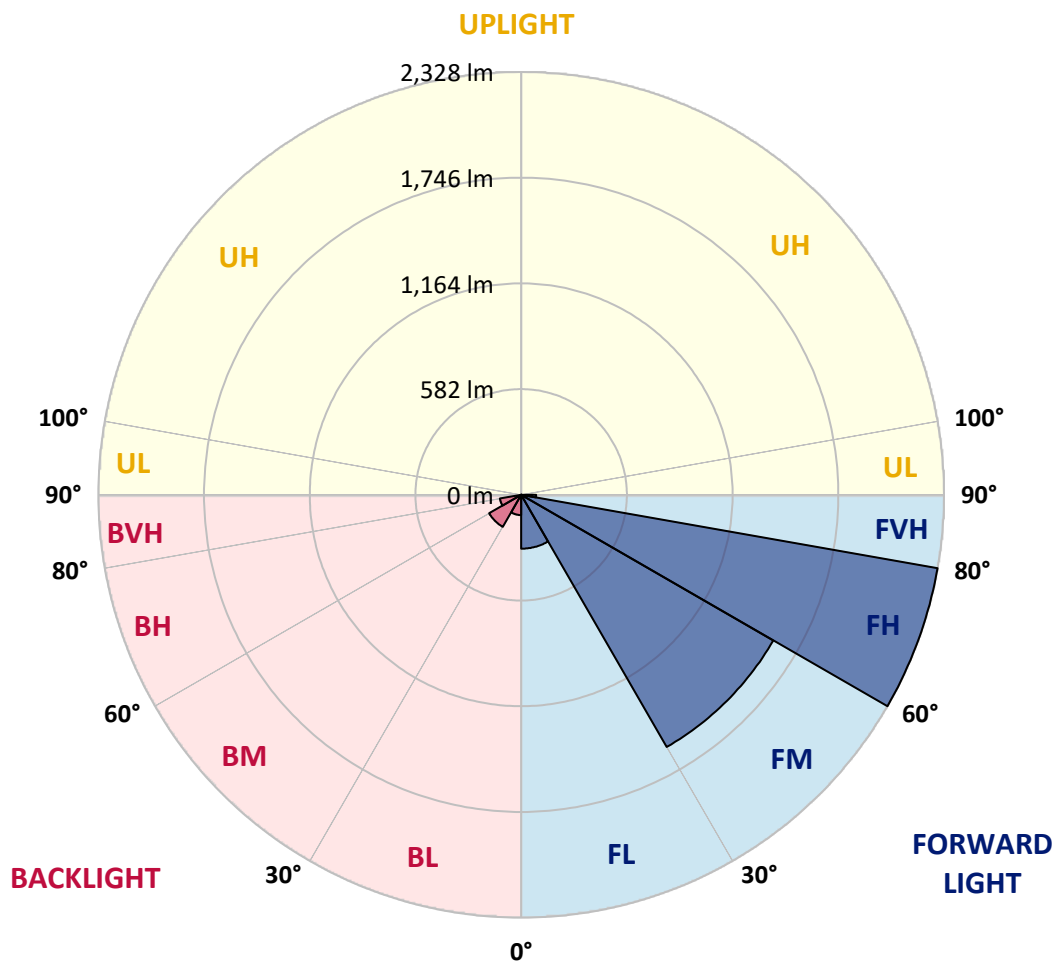
CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	296.7	6.3			
FM	(30°-60°)	1602.6	33.8			
FH	(60°-80°)	2327.6	49.1			G2/5000
FVH	(80°-90°)	82.3	1.7			G1/100
BL	(0°-30°)	111.5	2.4	B1/500		
BM	(30°-60°)	203.3	4.3	B0/220		
BH	(60°-80°)	118.8	2.5	B1/500		G1/500
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Medium





REPORT NUMBER: P214950

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3
2.5°	551.1	551.1	549.9	548.8	543.2	537.6	536.5	533.1	523.0	516.3	509.5
5°	597.1	598.2	596.0	590.3	578.0	565.7	564.5	555.5	536.5	523.0	508.4
7.5°	640.8	643.1	637.5	627.4	612.8	594.8	593.7	576.9	552.2	533.1	511.8
10°	677.9	677.9	670.0	657.7	642.0	622.9	620.6	601.6	573.5	549.9	521.9
12.5°	718.3	717.2	705.9	689.1	671.1	653.2	652.1	628.5	601.6	571.3	536.5
15°	755.3	753.1	738.5	722.8	703.7	684.6	683.5	659.9	631.9	596.0	557.8
17.5°	775.5	774.4	760.9	745.2	729.5	714.9	713.8	689.1	658.8	621.8	579.1
20°	778.9	780.0	768.8	755.3	746.3	738.5	738.5	716.0	683.5	644.2	601.6
22.5°	780.0	783.4	775.5	757.6	755.3	756.4	758.7	740.7	707.1	670.0	625.1
25°	787.9	792.4	786.7	765.4	763.2	771.0	773.3	765.4	735.1	698.1	652.1
27.5°	803.6	808.1	803.6	776.6	773.3	781.1	783.4	787.9	765.4	725.0	680.1
30°	835.0	836.1	826.0	792.4	785.6	795.7	799.1	811.4	793.5	750.8	707.1
32.5°	890.0	878.8	848.5	803.6	798.0	809.2	812.6	826.0	819.3	775.5	735.1
35°	1002.2	943.9	874.3	819.3	813.7	824.9	829.4	848.5	851.8	810.3	769.9
37.5°	1001.1	948.4	934.9	849.6	841.7	849.6	855.2	878.8	892.2	856.3	820.4
40°	1071.8	1049.4	1049.4	906.8	881.0	892.2	897.9	921.4	945.0	916.9	879.9
42.5°	1294.0	1279.4	1263.7	1016.8	936.0	967.4	970.8	985.4	1013.5	1004.5	960.7
45°	1542.1	1528.6	1468.0	1203.1	1030.3	1035.9	1043.8	1067.3	1107.7	1124.6	1072.9
47.5°	1736.2	1722.8	1671.1	1427.6	1177.3	1127.9	1127.9	1173.9	1236.8	1279.4	1230.1
50°	1892.2	1876.5	1845.1	1666.6	1418.6	1260.4	1253.6	1307.5	1400.7	1466.9	1433.2
52.5°	2043.7	1997.7	1978.7	1913.6	1691.3	1452.3	1434.3	1472.5	1601.6	1683.5	1655.4
55°	2144.8	2138.0	2117.8	2140.3	1977.5	1685.7	1670.0	1677.9	1839.5	1894.5	1859.7
57.5°	2239.0	2237.9	2282.8	2387.2	2289.5	1952.8	1928.1	1915.8	2069.6	2056.1	2086.4
60°	2355.8	2335.6	2439.9	2589.2	2575.7	2213.2	2185.2	2160.5	2245.8	2207.6	2358.0
62.5°	2361.4	2355.8	2567.9	2782.2	2859.7	2478.1	2445.5	2356.9	2399.5	2355.8	2617.3
65°	2147.0	2175.1	2621.7	2884.4	3097.6	2710.4	2671.1	2533.1	2536.4	2507.3	2922.5
67.5°	2098.7	2113.3	2473.6	2994.4	3269.3	2945.0	2907.9	2736.2	2695.8	2698.1	3103.2
70°	1978.7	2001.1	2289.5	2986.5	3405.1	3258.1	3221.1	3034.8	2937.1	2828.3	2964.1
72.5°	1511.8	1549.9	1929.3	2618.4	3368.1	3667.7	3657.6	3413.0	3033.6	2597.1	2242.4
75°	511.8	510.7	1013.5	1758.7	3025.8	3793.4	3813.7	3365.8	2646.4	1791.2	1113.3
77.5°	110.0	111.1	208.8	712.7	2010.1	3046.0	3123.4	2538.7	1707.1	798.0	254.8
80°	53.9	55.0	86.4	188.6	803.6	1708.2	1829.4	1305.3	630.7	159.4	42.6
82.5°	26.9	28.1	44.9	99.9	297.4	607.2	648.7	480.4	180.7	89.8	21.3
85°	10.1	10.1	22.4	59.5	135.8	142.5	175.1	139.2	108.9	73.0	5.6
87.5°	2.2	2.2	12.3	29.2	60.6	44.9	44.9	42.6	66.2	49.4	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214950

CATALOG NUMBER: ARCH-AF16-60-D-U-T4W-7050-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3
2.5°	506.2	501.7	493.8	486.0	480.4	473.6	470.3	466.9	465.8	464.6	466.9
5°	500.6	493.8	479.2	466.9	455.7	446.7	440.0	433.2	429.8	427.6	428.7
7.5°	500.6	490.5	469.1	450.1	432.1	413.0	393.9	379.3	368.1	361.4	362.5
10°	506.2	492.7	464.6	438.8	405.2	364.8	323.2	291.8	270.5	258.1	258.1
12.5°	518.5	500.6	465.8	425.4	368.1	297.4	234.6	196.4	180.7	171.7	172.8
15°	535.3	514.0	471.4	407.4	316.5	221.1	163.9	139.2	139.2	141.4	142.5
17.5°	554.4	530.9	475.9	380.5	250.3	158.2	129.1	126.8	130.2	135.8	135.8
20°	573.5	547.7	478.1	337.8	187.4	125.7	122.3	122.3	124.6	130.2	131.3
22.5°	597.1	569.0	475.9	285.1	140.3	119.0	117.8	117.8	117.8	124.6	124.6
25°	621.8	593.7	466.9	229.0	119.0	114.5	113.4	112.2	112.2	117.8	119.0
27.5°	649.8	619.5	445.6	175.1	112.2	110.0	108.9	106.6	106.6	111.1	111.1
30°	677.9	648.7	413.0	132.4	106.6	105.5	103.3	101.0	98.8	103.3	103.3
32.5°	708.2	679.0	370.4	105.5	98.8	98.8	97.6	94.3	92.0	94.3	95.4
35°	748.6	713.8	322.1	92.0	88.7	88.7	88.7	87.5	83.1	85.3	85.3
37.5°	802.5	762.1	266.0	85.3	80.8	78.6	78.6	78.6	75.2	76.3	76.3
40°	870.9	818.2	212.1	79.7	75.2	69.6	67.3	68.5	66.2	66.2	65.1
42.5°	964.1	878.8	159.4	75.2	70.7	62.9	58.4	57.2	55.0	53.9	53.9
45°	1097.6	952.9	114.5	70.7	67.3	55.0	50.5	47.1	41.5	38.2	38.2
47.5°	1270.5	1037.0	85.3	66.2	64.0	48.3	42.6	35.9	28.1	25.8	25.8
50°	1481.5	1131.3	71.8	59.5	58.4	42.6	33.7	23.6	15.7	13.5	14.6
52.5°	1686.8	1220.0	64.0	52.7	51.6	37.0	24.7	12.3	6.7	6.7	6.7
55°	1859.7	1282.8	58.4	47.1	44.9	29.2	13.5	5.6	3.4	3.4	3.4
57.5°	2015.7	1318.7	52.7	41.5	35.9	20.2	5.6	2.2	2.2	1.1	1.1
60°	2158.2	1340.1	46.0	35.9	28.1	11.2	2.2	1.1	1.1	0.0	0.0
62.5°	2298.5	1355.8	39.3	29.2	21.3	4.5	1.1	1.1	0.0	0.0	0.0
65°	2405.1	1350.2	31.4	23.6	13.5	2.2	1.1	0.0	0.0	0.0	0.0
67.5°	2401.8	1273.8	23.6	18.0	6.7	1.1	0.0	0.0	0.0	0.0	0.0
70°	2148.1	1072.9	15.7	11.2	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1524.1	688.0	10.1	6.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	671.1	208.8	5.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	131.3	48.3	3.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	31.4	5.6	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)